



**walvoil**  
MOTION BY PEOPLE

**NEW**

## EK10L

ON/OFF directional solenoid valve  
5 ways / 3 positions



### EK10L VALVE

- External zinc-plated and corrosion-proof components
- Hardened precision spool and cage to ensure minimal wear, minimum leakage and long life
- Flow path optimized through CFD analysis
- Industry common cavities
- Heavy duty polyurethane seals
- Several types of coil connectors and voltages
- Manual override options
- All ports may be fully pressurized



# EK10L ON/OFF DIRECTIONAL SOLENOID VALVE

5 WAYS / 3 POSITIONS



## DESCRIPTION:

Walvoil launches the new EK10L cartridge valve, direct acting solenoid operated, 5-way, 3-position, spool-type, with integrated Load Sensing port.

The EK10L valve has been designed to reduce the overall dimensions of the valve in order to obtain more compact HICs (Hydraulic Integrated Circuits), and also to increase the performance in terms of pressure, flow-rate and pressure drops.

## OPERATION:

The EK10L valve is available with different spools and manual override options, which increase the versatility of the product and ensure high flow capacity with reduced space requirements.

Optimized through CFD analysis, the reduction of the pressure drops on the main path ensures excellent switching performances maintaining the same type of coil mounted on the existing ET10L and ER10L valves.

This spool-type valve is available in SAE 10 size and is used for mobile and industrial applications, for the control of travel direction of actuators such as hydraulic motors and cylinders.

EK10L valve is assembled with the Walvoil crimping solution, that ensures, at the same time, more robustness while mounting them on HICs and a reduction of leakage due to spool clearance.

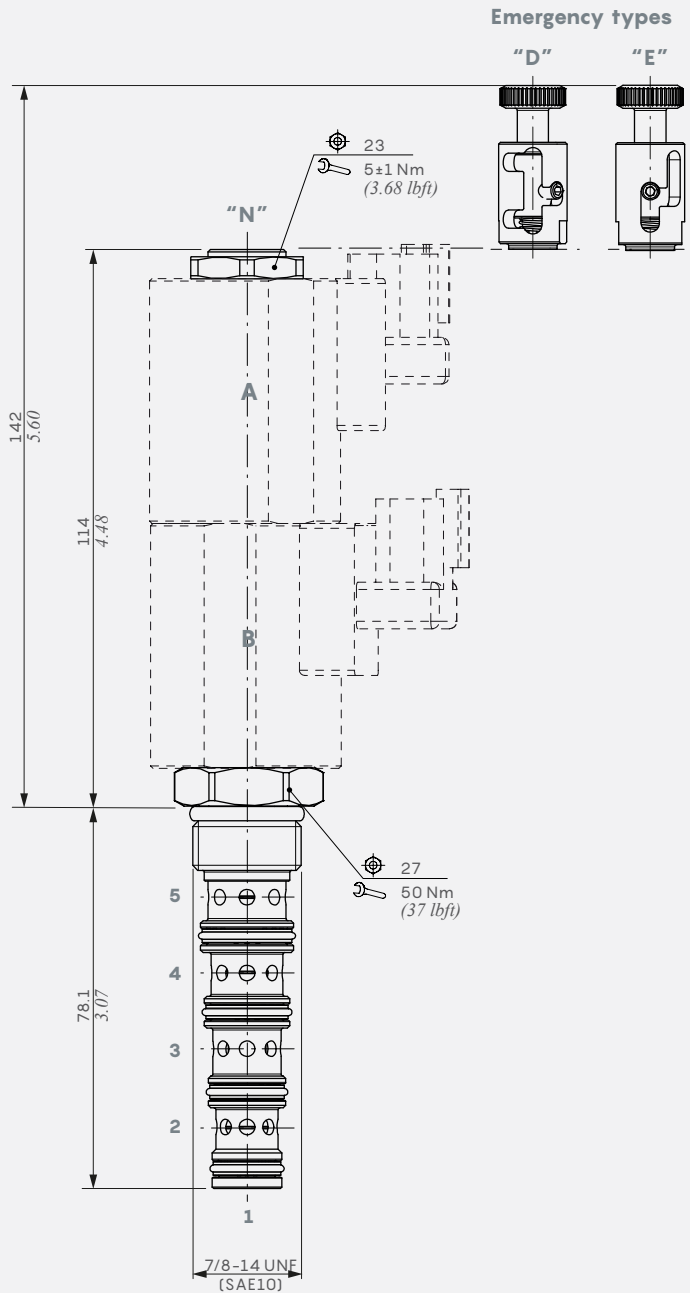
## WORKING CONDITIONS

Technical specifications and diagrams measured with mineral oil of  $46 \text{ mm}^2/\text{s}$  (46 cSt) viscosity at  $40^\circ\text{C}$  - ( $104^\circ\text{F}$ ) temperature.

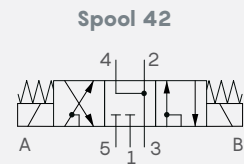
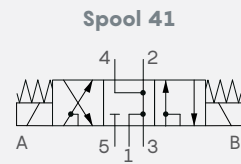
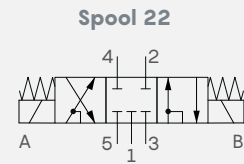
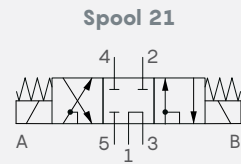
<b>Nominal flow</b>		20 l/min 5.3 US gpm
<b>Max pressure</b>		250 bar 3600 psi
<b>Oil leakage</b>	At 210 bar 3050 psi	80 cm <sup>3</sup> /min 4.88 in <sup>3</sup> /min
<b>Fluid</b>		hydraulic mineral oil-based
<b>Viscosity</b>		10-200 cSt
<b>Max level of contamination</b>		18/16/13 ISO4406
<b>Fluid temperature</b>	Polyurethane + NBR seals	from -20 to +80 °C from -4 to +176 °F
	FPM seals	from -20 to +100 °C from -4 to +212 °F
<b>Environmental temp. for working conditions</b>		from -20 to +60 °C from -4 to +140 °F
<b>Cavity</b>		SAE 10/5
<b>Coils type</b>		(BC)
<b>Power rating</b>		26 W (12/24 VDC)
<b>Connector types</b>		ISO4400 - Deutsch DT AMP-JPT - Flying leads

Note: For different conditions, please contact Sales Department.

**DIMENSIONAL DATA AND HYDRAULIC CIRCUITS**

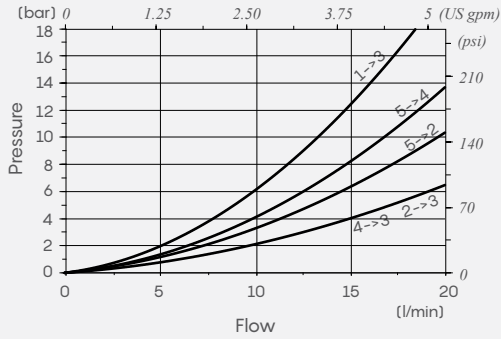


Emergency types	
<b>N</b>	EK10L/NB Without emergency
<b>D</b>	EK10L/DB Push/pull type with detent
<b>E</b>	EK10L/EB Push/pull type without detent

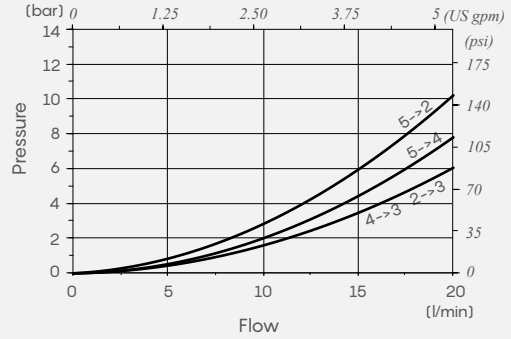


**PERFORMANCE DATA**

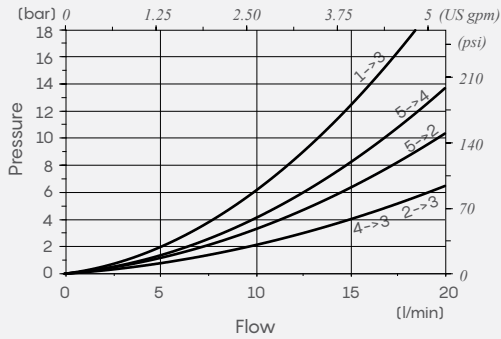
**Pressure drop vs. flow  
 (spool type 21)**



**Pressure drop vs. flow  
 (spool type 22)**



**Pressure drop vs. flow  
 (spool type 41)**



**Pressure drop vs. flow  
 (spool type 42)**

